

# METHODS FOR EXECUTION CONTROL ACQUISITION OF A PROGRAM AND FOR EXECUTING AN OPTIMIZED VERSION OF A PROGRAM

## **ABSTRACT OF THE DISCLOSURE**

In a method for execution control acquisition of a program, during the execution of the program, it is determined when a hardware performance counter has reached a threshold. When the threshold is reached, execution control is switched to a dynamic optimizer. Thereafter, an optimized version of the program is executed. In a method for executing an optimized version of a program, during execution of the optimized version, an interrupt is received and execution control is returned to an operating system. An original version of the program is then executed. During the execution of the original version, a hardware performance counter is monitored. When the hardware performance counter reaches a threshold during the execution of the original version, execution control is switched to a dynamic optimizer. Thereafter, the execution of the optimized version of the program is continued as directed by the dynamic optimizer.